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Application/Control Number: 11/657,741
Art Unit: 4162

Comments to Claim Rejections

A. Examiner's Comment number 3: This listing of claims (claims 4 through 6) shall replace the listing of claims of the Application/Control Number: 11/657,741.

Claim 4. (Currently Amended) A formulation to remove mercury and other pollutants from a fluid stream such as combustion gases at temperatures between 200 and 850° F consisting of a mixture made by mixing together two groups of materials, one selected from the group consisting of a mixture of bromide or iodide of ammonia, alkali metals, alkaline metals, and mixtures thereof, and another selected from the group consisting of nitrate of ammonia, alkali metals, alkaline metals, base metals, and mixtures thereof.

Claim 5. (Currently Amended) A formulation to remove mercury and other pollutants present in a fluid stream, such as combustion gases, consisting of a mixture made by mixing together two groups of materials, one selected from the group consisting of bromide or iodide of ammonia, alkali metals, alkaline metals, base metals, and mixtures thereof, and another selected from the group consisting of poly hydroxy compounds such as sucrose, fructose, lactose, molasses, and mixtures thereof, and ammonium sulfate or sulfuric acid, and mixtures thereof.

Claim 6. (Currently Amended) The formulation as claimed in claim 1 above, is also claimed to be useful to condition the dust or fly ash present in the combustion gases,

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produced from the combustion of ash containing fuels, to enhance the removal efficiency of the dust removing equipment such as electrostatic precipitator (ESP) for the said dust when the gas temperature is between 200 and 850° F.

B. Examiner's comment number 4: I believe this comment has now been appropriately addressed in the amended claims listed above.

C. Double Patenting: This does not apply as it is not conflicting to U.S. Patent No. 7,081,434 B2. The referenced patent claims iodide, in addition to several other inorganic compounds that are not halides. It is not obvious that bromide should work because iodide worked.

I obtained this unexpected result with bromide only. Because in the tests during the experiments conducted which formed the basis for making the Patent Application which was awarded to this author as Patent No. 7,081,434 B2, the chloride based formulations did not yield the desirable results for mercury removal. Since the chloride, as ammonium, sodium, calcium or magnesium did not produce the desirable result; I did not test the efficacies of bromide and fluoride, the other two members of the inorganic halide.

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The unexpected removal of mercury by bromide compounds, when prepared as formulations claimed in claims 1 and 2, occurred so a patent application of unusual and unexpected invention was filed.

D. Examiner's Comment No. 5: My comments in "C" as above also apply to this rejection. My claim no. 2 in the original application or claim no. 5 in this amended application, is different than the referenced patent. The unexpected result with bromide containing preparations is not obvious from the referenced patent.

E. Examiner's comment No. 6: The Comrie application (20060210463) and the claims in the application teach a totally different art than my application as outlined below.

Comrie finds that the calcium bromide or calcium bromide plus nitrate or nitrite are effective when the calcium bromide alone or the mixture of calcium bromide and the nitrate or nitrite is applied to the coal (claims 1 through 6) or one, calcium bromide or calcium bromide plus a nitrate or nitrite, is added to the coal prior to its combustion and then a second sorbent containing calcium oxide, cement, etc., (claim 10 through 29) is added to the combustion chamber where the temperature is normally between 1500 and 2700F (paragraphs no. 40 and 41 by Comrie).

Comrie teaches an art which is totally different from the findings of Sinha.

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I, Rabindra Kumar Sinha, therefore, request that my application as amended in here and because of the differences pointed out in here, request that my application be allowed as the rejections are improper and deficient.

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